Epilogue: Reading Comprehension Is Not a Single Ability—Implications for Assessment and Instruction

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\textbf{Purpose:} In this epilogue, we review the 4 response articles and highlight the implications of a multidimensional view of reading for the assessment and instruction of reading comprehension.

\textbf{Method:} We reiterate the problems with standardized tests of reading comprehension and discuss the advantages and disadvantages of recently developed authentic tests of reading comprehension. In the “Instruction” section, we review the benefits and limitations of strategy instruction and highlight suggestions from the response articles to improve content and language knowledge.

\textbf{Conclusions:} We argue that the only compelling reason to administer a standardized test of reading comprehension is when these tests are necessary to qualify students for special education services. Instruction should be focused on content knowledge, language knowledge, and specific task and learning requirements. This instruction may entail the use of comprehension strategies, particularly those that are specific to the task and focus on integrating new knowledge with prior knowledge.

I\textsuperscript{n} our initial article in this clinical forum (Catts & Kamhi, 2017), we argued that reading comprehension is not a single ability because it varies as a function of the interaction among reader, text, and task factors. We are not unique in making this point. The RAND Corporation Reading Study Group (Snow, 2002) proposed an interactive, multidimensional model of reading comprehension 15 years ago. But long before that, Lipson and Wixson (1986) had noted that reading ability was not static; it varied as a function of many factors, including content knowledge, motivation and interest, text organization, nature and content of the task, and characteristics of the setting in which reading occurs. Wixson (2017) recounts the evidence from studies that confirmed that performance on common reading measures varied for both readers with and without a disability as a function of the conditions of the reading situation. On the basis of these results, she reiterated her and her colleague’s earlier conclusion that it is more important to assess how students perform under different reading conditions than to view variables as prior knowledge, text organization, and task factors as nuisance variables that need to be controlled (Lipson & Wixson, 1986). In a more recent article, Wixson et al. (Pearson, Valencia, & Wixson, 2014) show how student performance across different texts and response formats (tasks) can be used to construct profiles of comprehension abilities.

As we argued in our initial article, speech-language pathologists (SLPs) and educators should be particularly wary of commonly used standardized tests of reading comprehension that reduce reading ability to a single score. Single scores lack the reliability and validity to differentiate good readers from poor readers (Lipson & Wixson, 1986). Evidence shows that less than 50\% of poor readers identified by one test may be similarly identified by another (Keenan & Meenan, 2014). This is clearly not the level of consistency needed for diagnostic purposes. These standardized tests of reading comprehension also provide little direction for instruction and often result in teaching to the text rather than deep learning of content knowledge. In our view, the only compelling reason to administer a commercially available test of reading comprehension is when these tests are necessary to qualify students for special education services.

State assessments of reading comprehension have many of the same problems as commercially available tests of reading comprehension. These mandated tests are given each year to measure “general reading ability” and to rank children and schools. Especially problematic is that performance on current state assessments is heavily influenced by prior content knowledge. Similar problems plague more
authentic state assessments of reading comprehension, such as the one developed by the Partnership for Assessment of Readiness for College and Careers (PARCC, 2016). The assessments created by PARCC consider the level of text complexity (readily accessible, moderately complex, very complex), range of accuracy of a student’s responses (inaccurate, partially accurate, minimally accurate, generally accurate, mostly accurate, and accurate), and the quality of the evidence provided by a student (explicit evidence, inferential evidence). Examples can be found on the PARCC website.

Despite the authenticity of PARCC, this test is no less dependent on prior content knowledge than the other standardized assessments currently in use. Wattenberg (2016), for example, recently analyzed the knowledge demands of third-grade informational passages released by the PARCC group. She found that the subject matter covered in these passages was very broad, requiring knowledge of place geography, physical geography, seasons, astronomy, a wide variety of animals, and measurement units. In addition to the high-level content of the passages, very challenging vocabulary was included. Preparing students to score well on this text would require exposure to a rich, broad curriculum of science, history, and geography starting at the earliest grades.

Another authentic assessment is the Global Integrated Scenario-Based Assessment (O’Reilly, Sabatini, & Deane, 2013). This assessment, which was developed as part of the Reading for Understanding Initiative (n.d.), addresses the influence of prior content knowledge in several ways (O’Reilly & Sabatini, 2013). Before reading each text, students are given a topic knowledge quiz. Although the performance on the quizzes does not contribute to the final score, it provides an estimate of what students know before they read the texts. This information helps to determine whether the reading score is reflective of true reading ability or background knowledge. In addition to measuring background knowledge directly, student knowledge is built up over the course of the GISA assessment by providing introductory multimedia on the topic or by providing additional texts that supplement the content (O’Reilly & Sabatini, 2013). Texts and other source materials are introduced in sequence, with earlier texts providing a general overview of the topic and later texts providing more in-depth information about the topic. O’Reilly and Sabatini (2013) recognize that the additional content does not totally resolve the issue of prior knowledge because knowing a topic well will usually be associated with better comprehension performance, but assessing students’ ability to apply new knowledge provides teachers with important information about student learning potential.

In light of the problems with assessments of reading comprehension, SLPs are right to wonder what their role should be in the assessment process. Although SLPs may be comfortable assessing all of the skills and knowledge bases involved in reading, their particular contribution to the assessment team will often focus on language abilities. This would involve more than simply administering a test of listening comprehension because these tests suffer from the same problems as those of reading comprehension tests. SLPs should focus on assessing the language associated with the curriculum. This language is often referred to as academic language (Uccelli & Galloway, 2017; Wixson, 2017). Direct measures of subject knowledge will also be useful in planning instruction or intervention. In most cases, subject assessments will be part of the curriculum materials. In some cases, though, it may be necessary to supplement these materials with additional subject-specific assessments.

SLPs also can help students and parents understand the limitations of standardized tests and state assessments of reading comprehension. Students and parents should be told that assessments of reading comprehension are primarily measures of topic-specific knowledge, which means that students who have more knowledge about various topics will usually do better than students who have less knowledge (Hirsch, 2016; Wattenberg, 2016). Most important, students and parents need to know that reading comprehension is not a general skill that can be reduced to a single number.

Instruction

The primary approach to the instruction of reading comprehension has been the teaching of general metacognitive reading strategies. Although many studies have shown the benefit of general strategy instruction (e.g., Gersten, Fuchs, Williams, & Baker, 2001), there are limitations in its use. As Elleman and Compton (2017) point out, strategy instruction may lead to a shallow representation of a text and may interfere with the deeper processing of its content. This is particularly true for strategy instruction that does not target specific texts and tasks. In Catts and Kamhi (2017), we offered several examples of text-task situations in which specific reading strategies could be beneficial. For example, explicitly teaching students how to evaluate an argument could be a useful strategy for a classroom assignment, especially if the strategy was tied to a specific discipline or subject area (Goldman et al., 2016). Specific strategy instruction will be most beneficial when combined with strong content knowledge. Without such knowledge, metacognitive strategies may provide minimal assistance to the reader in understanding the text (Willingham, 2006).

Because of the centrality of content knowledge to comprehension, building this knowledge is the best way to improve reading comprehension. This knowledge building should occur in the early grades through listening, talking, and experiential activities, as well as through reading (see Hirsch, 2016). As we noted in Catts and Kamhi (2017), reading is just one way to acquire knowledge. The three response articles that address instruction (Elleman & Compton, 2017; Ukrainetz, 2017; Wallach & Ocampo, 2017) all emphasize the importance of improving content knowledge. This is consistent with many other authors (e.g., Hirsch, 2016; Willingham, 2006) who have argued that strengthening knowledge across subject matter would go a long way toward improving the reading comprehension of most students.

The response articles contain numerous suggestions about how to improve content knowledge. For example,
Elleman and Compton (2017) suggest the use of a themed approach, selecting books with overlapping ideas, to increase the chances of knowledge and vocabulary acquisition. They also show how a dialogic or discussion-based approach and analogical reasoning can be used to build deep knowledge about a topic. Wallach and Ocampo (2017) also stress the importance of content knowledge. They provide specific examples of teaching students to differentiate between familiar texts that do not require precise reading to answer comprehension questions and unfamiliar texts that do require precise reading. Ukrainetz (2017) reminds us that an important component of the Common Core is “staying on topic,” which means delving deeply into a topic within and across grades. Providing repeated, supported encounters and other learning experiences on a particular topic enable students to develop rich, interconnected bodies of knowledge and become miniexperts in various areas (e.g., planets, dinosaurs, colonial period). With a heightened level of content knowledge, children will be able to engage successfully in a variety of comprehension tasks. They will also be able to take advantage of both general reading strategies (e.g., comprehension monitoring) and more specific strategies that are tied to the text-task situation (e.g., evaluating and responding to an argument). In other words, comprehension should be at its highest level when strong content knowledge is combined with effective metacognitive strategies.

The other area of agreement among the authors of the response articles is the central role of language knowledge in improving comprehension abilities. Elleman and Compton (2017) review some of the research showing how explicit teaching of vocabulary and a semantic cluster approach are effective in learning new vocabulary words. Ukrainetz (2017) suggests that vocabulary instruction should be embedded in instruction that is topic specific: The SLP should use a single coherent knowledge base to treat language goals (Ukrainetz, 2015). The topic may be connected to the classroom curriculum or to the child’s own interests. Students are not “pretaught” isolated words; deeper understanding is developed through repeated, supported encounters with topically connected texts (Nelson & Van Meter, 2006). Like Ukrainetz (2015, 2017), Wallach and Ocampo (2017) argue for embedding language instruction in topic-specific content areas. They provide an example of teaching students to understand the figurative language in a novel that fourth-grade students are reading.

Ukrainetz (2006) recommended developing a “language RTI (response to intervention)” that would attend to the comprehension side of reading in the early grades to complement existing decoding-focused RTIs. Since that time, at least one language RTI has been developed by Peterson and Spencer. Called Story Champs (see http://www.languagedynamicsgroup.com), the intervention program uses crafted narratives, visual supports, and simple instructional steps to teach story grammar structure, text vocabulary, and selected syntactic structures through repeated oral narrative retellings and generations. A growing body of research has shown positive effects of this intervention in individual, small-group, and whole-class formats on oral narrative language skills (e.g., Petersen et al., 2014; Petersen, Thomp森, Guiberson, & Spencer, 2015).

Revisiting the Narrow View of Reading

In preparing the epilogue, we were reminded of an earlier clinical forum on the narrow view of reading led by the first author (Kamhi, 2009) that also emphasized the central role that content knowledge plays in comprehension. The narrow view of reading defines reading as word-level reading; comprehension is excluded from the definition. Although the idea was a serious one, it was not expected to penetrate mainstream views about reading and reading disabilities. This might still be the case today, but we would be remiss if we did not point out how the narrow view of reading resolves the problems with reading comprehension assessment and instruction addressed in this clinical forum.

By defining reading narrowly as word-level reading, reading instruction would now target a skill that can be taught to all students except those with the most severe disabilities. Comprehension, in contrast, is defined broadly because meaning construction depends on subject-specific knowledge and complex reasoning processes. The narrow view effectively eliminates reading comprehension as a skill to be assessed and taught. State and national assessments would have separate measures of word-level reading and content-specific knowledge acquisition rather than one measure of reading that combines word-level reading with content-general comprehension.

As Hirsch (2006, 2016) has been arguing for the past 20 years, the true crisis in American education is a knowledge deficit, not a reading problem. The benefits of differentiating between word-level reading and comprehension are far reaching. Students who have adequate word reading skills but have difficulty understanding texts will be viewed as attaining reading proficiency but lacking in language and content knowledge. Instruction for these and other students will rightly focus on acquiring content knowledge and the language associated with this content. Comprehension will remain an important educational goal, but it will be taught in specific subject areas and called by its rightful names: American/European history, biology/chemistry, geometry/algebra, contemporary fiction/drama.

Conclusion

Reading comprehension is a multidimensional construct that is largely dependent on language and content knowledge. Dependency on content knowledge means that assessments of reading comprehension often vary considerably. Reducing reading comprehension to a single number, which standardized tests do, has contributed to and often exacerbated the many problems that continue to plague our nation’s schools (Hirsch, 2016). Clinicians and educators should resist the temptation to administer a standardized test of reading comprehension and instead assess academic language knowledge and comprehension of specific content.
areas. Instruction should be focused on the language and content knowledge of specific texts and tasks. This may entail the use of comprehension strategies, particularly those that are specific to the task, and focus on integrating new knowledge with prior knowledge. The three response articles by Ellman and Compton (2017), Ukraintez (2017), and Wallach and Ocampo (2017) provide numerous suggestions for providing instruction in these areas.

References


**Reading for Understanding.** (n.d.). Retrieved from https://www.ets.org/research/topics/reading_for_understanding/


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